

Tribal Wild Salmon Recovery Efforts

Introduction

The past two decades have witnessed the steady decline of many wild salmon stocks originating from Puget Sound and the Washington coast. A huge population influx in Washington state during the past 25 years – and the accompanying development, pollution and increased demand for water, among other factors – has resulted in a dramatic and well-documented loss of critical wild salmon habitat.

Despite efforts by tribes, state agencies and the federal government to protect freshwater habitat, the long term decline in both the quantity and quality of available wild salmon spawning and rearing habitat continues. The result is wild salmon populations that are smaller and less productive – so much so that the National Marine Fisheries Service (NMFS) in 1999 listed Puget Sound chinook salmon, Lake Ozette sockeye and Hood Canal summer chum stocks as “threatened” under the federal Endangered Species Act (ESA).

Natural forces have also contributed to the decline of wild salmon stocks in the region. Pacific Ocean warming and cooling phenomena known as El Nino and La Nina, respectively, have caused wide-ranging climatic conditions in the last decade that have brought droughts and flooding to western Washington watersheds. Such conditions can lead to poor freshwater salmon survival, and are also blamed for poor ocean survival and growth of young salmon.

Fisheries managers have responded to salmon declines with historic cutbacks in fisheries – as much as 80 percent in the last decade. But depleted stocks cannot be rebuilt by fishery restrictions alone. The habitat on which these stocks depend must also be restored.

Fishery closures and reductions have resulted in severe economic hardship for tribal fishermen on reservations, where unemployment runs as high as 80 percent. For 2001, fishery managers are again predicting low returns of some salmon stocks in some areas, with accompanying fishing restrictions.



A spawned-out chum salmon on Kennedy Creek, near Olympia, will return its nutrients to the stream, re-charging the ecosystem.

During FY 00, tribes continued implementation of a comprehensive approach to wild salmon stock recovery. While continuing to address ESA listings of several western Washington salmon stocks, tribes also embarked as participants in a Shared Strategy that offers the best hope for salmon recovery.

A Shared Strategy For Salmon Recovery

The Shared Strategy is an effort to save declining wild salmon stocks in the Puget Sound region by combining the efforts of tribal, state, federal and local governments and others. The regional approach to salmon recovery was developed following a meeting in 2000 at Port Ludlow that included over 150 salmon recovery leaders from throughout Puget Sound.

The proposed strategy is aimed at:

- Developing a recovery plan in two years that meets the broad interests for salmon in Puget Sound.
- Establishing a framework to link recovery efforts, complete a recovery plan, and guide its implementation.
- Identifying and supporting important current efforts to protect Puget Sound salmon.

Salmon leaders met in January 2001 to discern consensus on the Shared Strategy approach, and a steering committee has developed a proposal for implementation of the Shared Strategy over the next two years.

The Tribes And ESA

While the ESA is neither the beginning, nor the end point, of salmon recovery in western Washington, it is the filter through which all salmon recovery plans in western Washington must pass.

During FY 00, tribes completed management and recovery plans for Hood Canal/Eastern Strait of Juan de Fuca summer chum, while work neared completion on plans for Puget Sound chinook and Lake Ozette sockeye, the other “threatened” salmon species in the region.

The consultation process preceding adoption of 4(d) rules by the National Marine Fisheries Service (NMFS), the agency charged with implementing the ESA, also required large amounts of tribal and NWIFC staff time. The rules essentially allow actions, such as harvest and hatchery operations, taken pursuant to an acceptable recovery plan to be exempt from ESA take prohibitions.

With new federal funding in FY 00, tribes began a Hatchery Reform initiative, a systematic, science-driven redesign of how hatcheries will be used to achieve new purposes by helping to recover and conserve naturally spawning populations and supporting sustainable fisheries. As co-managers, the tribes and State of Washington are seeking to go beyond merely complying with ESA directives that hatcheries be operated to minimize risks to endangered salmon.

New federal funding under the Pacific Coastal Salmon Recovery initiative also enabled tribes to begin new efforts or continue existing projects in four important areas of wild salmon recovery: habitat restoration; stock enhancement; salmon research; and implementation of the 1999 Pacific Salmon Treaty. With the aid of this new federal funding, tribes are conducting comprehensive projects in each of these four areas that will contribute significantly to the effort to restore wild salmon populations.

Comprehensive Species Planning

Work also continued during FY 00 on Comprehensive Species Planning, which is aimed at ensuring the health, maintenance and restoration of salmon. This effort recognizes that the management of habitat, harvest and hatcheries cannot be addressed in isolation. For example, harvest management has responded – and must continue to respond – to wild stock declines. However, when long-term problems are rooted primarily in habitat degradation, rather than overfishing, further restrictions in fisheries will not restore depressed stocks to their full productive potential. The answer lies in a comprehensive approach of addressing all impacts to weak stocks, including protecting productive habitat and restoring degraded habitat.

Regional or watershed initiatives are at the heart of tribal comprehensive species planning. Specific recovery plans are being developed for each watershed and will guide how fisheries, habitat and hatcheries will be managed.

Tribal and state harvest managers are responding to wild salmon declines through improved planning processes like Comprehensive Coho and Comprehensive Puget Sound Chinook, which seek to protect and restore adequate freshwater habitat and to ensure enough spawning adult salmon escape to use it. The goal is to restore the abundance, productivity and diversity of salmon stocks originating in Puget Sound and the Washington coast to levels that can sustain treaty and non-treaty fisheries.

Comprehensive Coho has been in development since 1993. Efforts to develop a comprehensive Puget Sound chinook management plan began in 1997 and are now nearing completion.

The comprehensive chinook and coho management plans are designed to change the way salmon are managed by moving away from the fixed escapement target and toward harvesting a percentage of the overall run, known as an exploitation rate, in concert with freshwater habitat improvements and firm hatchery guidelines.

Along with exploitation rate-driven traits, the new management plans are designed to be flexible and adaptive, with the ability to incorporate new information as it becomes available. The plans can also be used to provide standards for hatchery production and habitat maintenance, and they are assessment oriented, with performance based on annual monitoring.

Efforts also continued during FY 00 on development of co-manager wild salmon recovery goals. The recovery goals create a common language and define measurements for success as part of a shared strategy to achieve wild salmon recovery in western Washington. Perhaps more importantly, the goals assess, connect and address all factors affecting salmon recovery: Harvest, hatcheries and habitat. Built-in flexibility enables the goals to be adjusted in response to changes over time and information gathered through extensive monitoring. Because the goals are defined at the watershed level, they can effectively direct restoration efforts to produce the greatest benefit.

The Wild Stock Restoration Initiative

The recovery goals are an outgrowth of the Wild Stock Restoration Initiative (WSRI) begun in 1991 by the state and treaty Indian tribes in western Washington to address the long-term needs of chinook, coho and other salmon species.

The tribes and WDFW created the WSRI in 1991 in response to wild salmon and steelhead stock concerns and the anticipated filing of ESA petitions for many of those populations. The following general approach was established to address wild stock status and recovery:

- Inventory status of stocks and their habitat;
- Review goals and objectives;
- Review management strategies (harvest, habitat and hatcheries);
- Develop recovery and management plans; and
- Monitoring and evaluation.

Salmon And Steelhead Stock Inventory

The first step in the Wild Stock Restoration Initiative – a statewide inventory of all salmonid stocks and their status – began in the spring of 1992. It took about one year to complete the Salmon and Steelhead Stock Inventory (SASSI), and another 18 months to complete the detailed appendices which provide the data and information used in the evaluation of stock status.

SASSI grouped Washington's 435 salmonid stocks into five status categories. Of the total, 187 stocks were categorized as healthy; 122 depressed; 12 critical; 113 unknown; and one extinct. SASSI will be periodically updated and revised to reflect changes in stock status gathered through monitoring and evaluation.

While compiling the SASSI document, it became apparent to the tribes and WDFW that it would be impossible to adequately assess salmonid habitat within the scope of the stock inventory. Because freshwater habitat is a basic limiting factor for the production of some salmonid species, it was clear that an inventory of salmonid habitat must also be compiled.

Salmon And Steelhead Habitat Inventory And Assessment Project

Work on the second step in the Wild Stock Restoration Initiative – the Salmon and Steelhead Habitat Inventory and Assessment Project (SSHIAP) – began in 1995.

SSHIAP will result in a blueprint for joint tribal/state action to define a cooperative process to implement habitat and restoration strategies by:

- Documenting past and current habitat conditions;
- Assessing the role of habitat loss and degradation on the condition of salmon and steelhead stocks; and
- Developing stock- or watershed-specific strategies for habitat protection and restoration.

SSHIAP Time Line

Because of the need for quick action to reverse the decline of wild salmon and steelhead stocks, SSHIAP is using existing information. Efforts to update the information will continue throughout the life of the project. Both SASSI and SSHIAP must be viewed as ongoing processes, and continued funding will be necessary.

State salmon recovery legislation passed in 1999 mentions SSHIAP as the basis for prioritizing salmon recovery projects and as the repository and analysis tool for habitat monitoring information. To this end, SSHIAP received a grant from the state Salmon Recovery Board to help complete the habitat database and GIS tools for Water Resource Inventory Areas 1-23, which includes all most of western Washington except for Columbia River drainages.

SSHIAP products will include:

- Expanded habitat sections for the SASSI document that describe the location, amount and current condition of habitats used at various stages in the life of salmon and steelhead, historic habitat loss, and the natural and man-made factors contributing to habitat loss and degradation.
- A database that can be queried to provide graphical depictions of types and amounts of habitat lost and degraded, and how this affects salmonid stocks of concern;
- Maps showing critical habitats used by each stock in each stage of its life;
- A habitat protection and restoration strategy for each stock and/or watershed; and
- A funding strategy to obtain resources necessary to implement habitat protection/restoration strategies and conduct necessary research.

SSHIAP has been working closely with and providing information for use in a number of processes, including:

- Comprehensive species planning;
- Statewide Limiting Factors Analysis;
- Department of Ecology Watershed Characterization Project;
- Timber/Fish/Wildlife Watershed Analysis;
- The Interagency Committee for Outdoor Recreation salmon recovery database; and
- The Washington Department of Fish and Wildlife/ Washington Department of Transportation salmonid passage database.

SSHIAP will continue to evolve and grow to meet the needs of salmon restoration in the State of Washington.

Wild Stock Restoration And The ESA

Results of the Shared Strategy and the Wild Stock Restoration Initiative – as well as the many other ongoing efforts of the tribes and state to address the decline of wild salmon stock – are figuring prominently in the ESA decision-making process and in finding solutions to saving salmon.

The tribes generally support the ESA, but hold restoration to a higher standard than the ESA's species-by-species approach to preventing extinction. Tribes believe that resources and the ecosystems on which they depend must be managed with the realization that all things are connected.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.wa.gov.